Syllabus
MSNE 580 – Microscopy Methods Spring 2016

Instructor Information
Instructor: Prof. Emilie Ringe
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Grading: standard letter
Office Hours: after class and by appointment

Textbook
Williams & Carter, *Transmission Electron Microscopy: A Textbook for Materials Science, Second Edition*

Course Identification
Course Number: MSCI 580 CRN 25142
Course Name: Microscopy Methods
Meeting times: W & F 1:00-2:15PM
Location: Mech Lab 254

Course Description and Objectives
Lecture course covering basic and advanced electron-based techniques, instrumentation, and image interpretation. Topics include imaging (SEM/TEM/STEM), diffraction, tomography, holography, in-situ techniques, and time-resolved approaches. Also includes several classes on spectroscopy and analytical techniques (EDS/EELS/CL). The theoretical understanding gained by students will help them understand/interpret published and research data as well as design electron microscopy experiments.

Open to all graduate and senior undergraduates, permission required, contact the instructor. Experience on electron microscope recommended but not strictly necessary for lecture component.
Can be taken concurrently with MSNE582

Evaluation and Grade Policy
Evaluation based on pre-lecture question sets, literature searches, special topic presentations, and exams.

Any student with a disability requiring accommodations in this class is encouraged to contact the instructor. Additionally, students should contact the coordinator for Disabled Student Services in Allen Center.